Overview of JRCAB Information Systems

June 2004

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Overview of JRCAB's Support to the Joint Mission

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Overview of Force Health Protection's and JRCAB's role in the Joint Mission

National Military Strategy

Shape	Prepare	Respond

Healthy & Fit Force	Casualty Prevention	Casualty Care Management

Force Health Protection
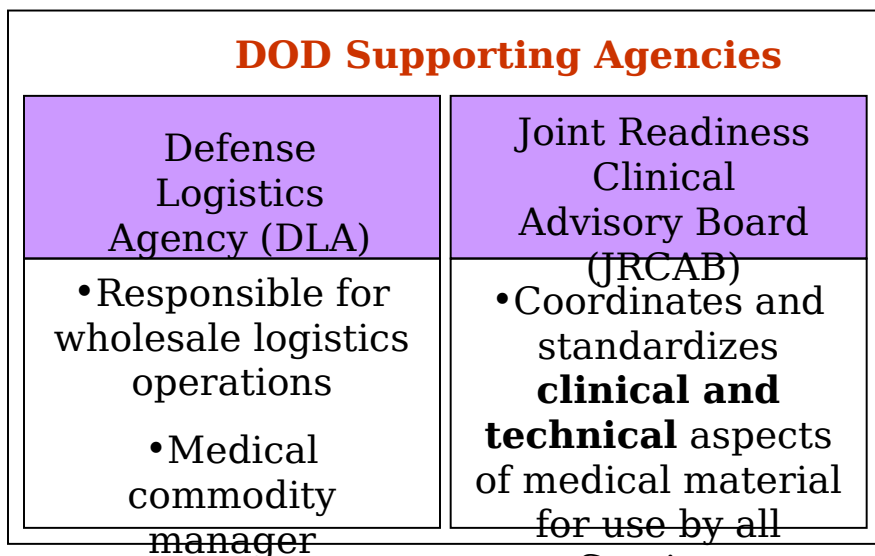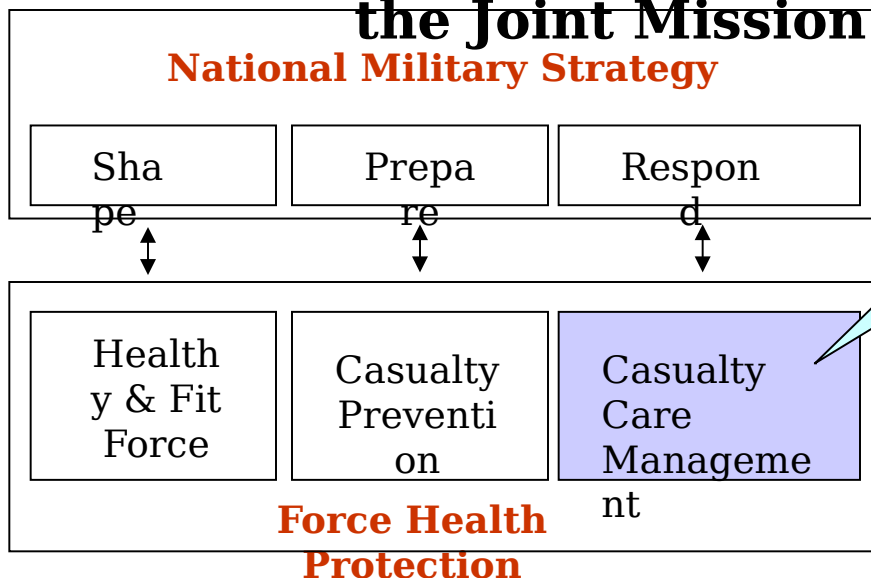
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Health Service Logistics Support (HSLS) Provides Medical Material Equipment when and where it is needed to support the mission

DOD Supporting Agencies

Defense Logistics Agency (DLA)	Joint Readiness Clinical Advisory Board (JRCAB)
•Responsible for wholesale logistics operations •Medical commodity manager	•Coordinates and standardizes **clinical and technical** aspects of medical material for use by all Services

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Alignment of JRCAB's Business Strategy and Infrastructure
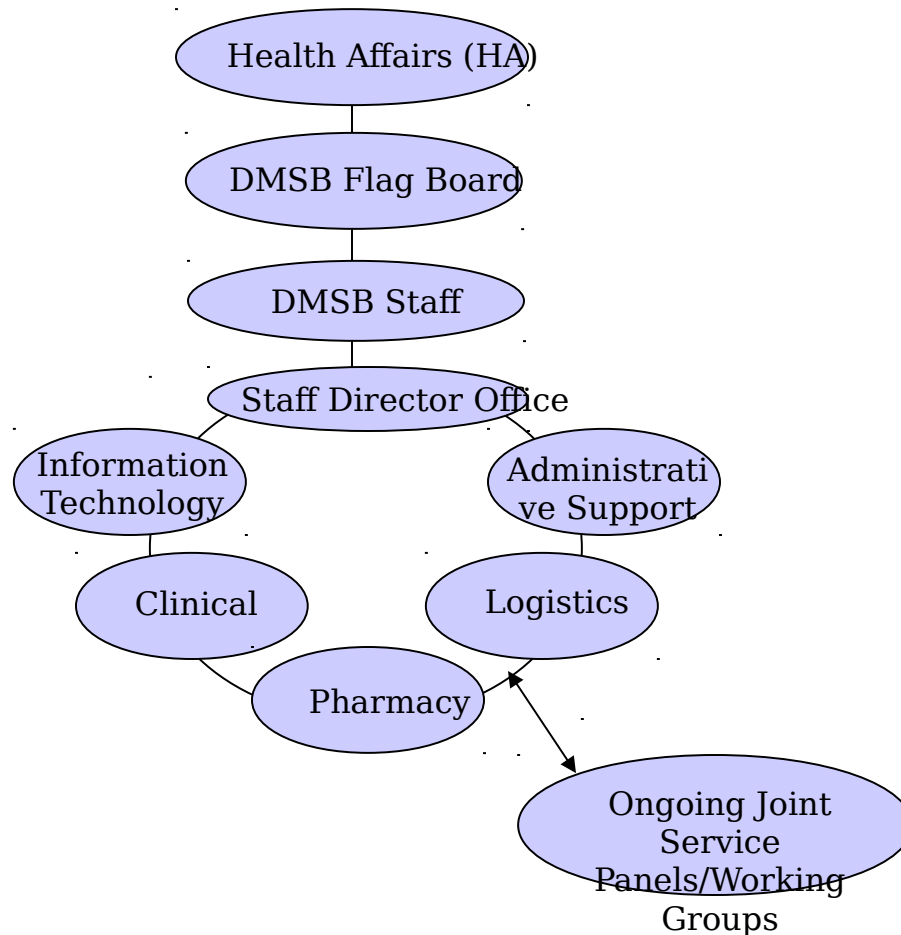
Business Strategy

Standardize, manage, and maximize use of DEPMEDS and Joint medical assemblages and material to optimize force health protection and medical readiness
Provide expert medical information and consultation for effectively treating a deployed force, as well as, essential characteristics for medical materiel
Support DoD Health Affairs' Medical Readiness Strategic Plan (MRSP) to address congressional concern for conservation of military medical resources (e.g., DoD/FDA Shelf Life Extension Program (SLEP))

Business Infrastructure

- Health Affairs (HA)
- DMSB Flag Board
- DMSB Staff
- Staff Director Office
  - Information Technology
  - Administrative Support
  - Clinical
  - Logistics
  - Pharmacy
  - Ongoing Joint Service Panels/Working Groups

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Under Secretary of Defense Personnel and Readiness

Assistant Secretary of Defense Health Affairs

• Responsible for overall peacetime and readiness-related Medical policy guidance

• *Establish doctrine for expeditionary medical care to ensure maximum standardization of DEPMEDS and medical assemblages - Appoint Chair and voting HA member to DMSB Board, as well as, approve coordinated medical assemblage recommendations from DMSB –* *Direct increased resource capabilities for DMSB to improve its daily oversight and collaboration capabilities*

• *Review Military Services' war reserve implementation, procurement, and sustainment programs to ensure maximum standardization of DEPMEDS and medical assemblages –* *Direct accountability by Military Services to DMSB for how procurement and sustainment programs con_____cal processes for Joint Vision*

Chairman of Joint Chiefs Staff (Represents COCOMS)

JRCAB aka Defense Medical Standardization Board & Staff

Secretaries of Military Departments (Surgeon General)

• Ensure Joint Staff, Log Dir (J-4) appoints voting rep to DMSB

Under Secretary of Defense for Acquisition and Technology

• *Responsible for overall logistics policy guidance on input and interests of DLA –* *Improve interoperability with DoD Joint agencies & provide specific resources to optimize standardization initiatives*

• Ensure DLA appoints a non-voting rep to DMSB Board

• *Review DEPMEDS/other UA's developed by Services/DMSB staff and submit those meet standardization policies/rules the ASD(HA) for final approval -* *Improve daily oversight of standardization compliance/deviation*

• *Establish rules of procedure and methods of operation establishing Jo_____lish DM_____ ac_____, specialty mix*

• *Program, budget, and finance all costs of operations of DMSB and staff – Align support to DMSB's updated resource requirements*

• *Provide support for internal administration and operation of*

Secretary of Army (EA activity)

• *Maximize use of standardized DoD materiel and commercial off-the-shelf items - Improve accountability and trend analysis*

• *Obtain DMSB review and ASD(HA) approval before acquiring DEPMEDS - Improve accountability*

• Appoint voting rep for each Service

• *Provide pay, allowances, and PCS travel of DMSB Board members and assigned military staff – Align support to DMSB's updated resource requirements*

JRCAB's Reengineering and Alignment of its Infrastructure to Strategy

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Aligning JRCAB's Business and IT Strategies

Business Strategy

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IM/IT Strategy

Improve Information Technology systems via reliability, standardization, maintenance, accessibility, interoperability, plus compliance with regulatory bodies, software engineering industry standards, and state-of-

Develop and provide all applicable DoD Components with tools for planning, programming, building, and maintaining medical assemblages plus support joint Military Service medical requirements and capabilities, the DMSB mission, and as tasked by ASD (HA) or as requested by the Services and the Chairman of the Joint Chief of Staff

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DMSB's Internal Assessment Results for its IM/IT Infrastructure:

Summary of Findings

- Aligning IT infrastructure to DoD/MHS IT strategy and industry-approved software engineering practices

- Migrating aged desktop database systems to DoD-approved enterprise-level database management system (DBMS) to support standard IT systems capabilities, e.g.,
  - Data model design which is scalable for implementing system modifications and new capabilities
  - Overall system design facilitates ease of use, interoperability, and ease-of-maintenance
  - Incorporation of transaction history for core system capabilities – capturing of system metrics which support data integrity and quality control/quality assurance processes by both system users and IT system engineers
  - Reliable IT systems to timely support JRCAB's mission requirements

- Aligning IT personnel resources to support enterprise-level IT requirements

- Alignment of IT budget to support all aspects of system operations and maintenance (i.e., operational infrastructure, new capabilities (e.g.,

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Aligning JRCAB's Business and IT Strategies
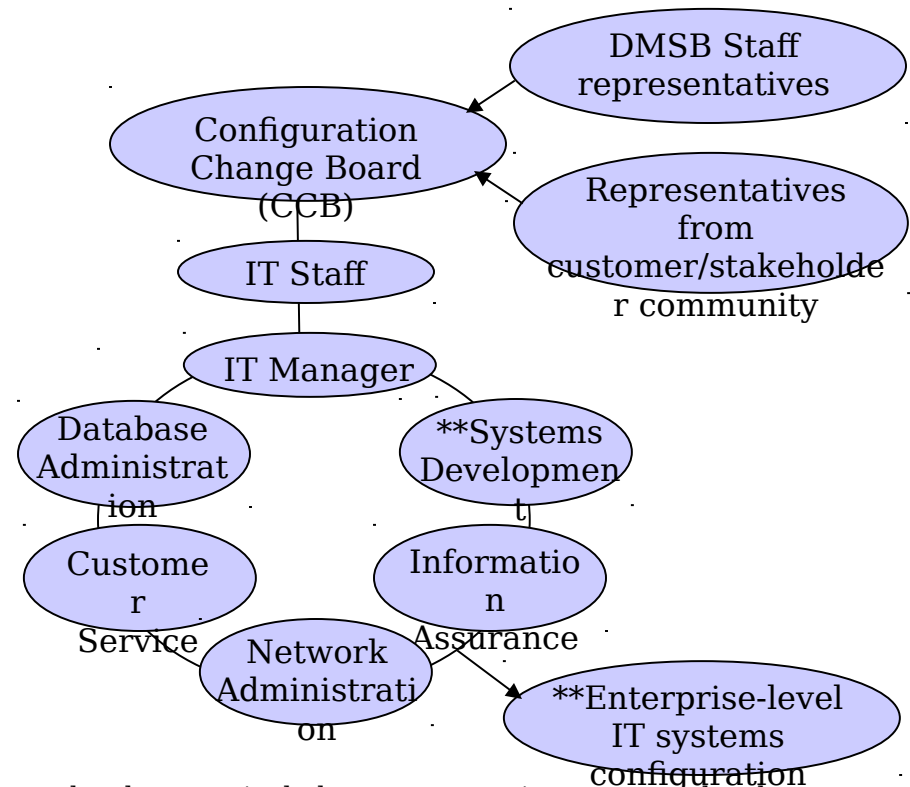*Tying in the IM/IT Strategy to the IM/IT Infrastructure*

IM/IT Strategy

IM/IT Infrastructure

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DMSB Staff representatives

Configuration Change Board (CCB)

Representatives from customer/stakeholder community

IT Staff

IT Manager

Database Administration

**Systems Development

Customer Service

Information Assurance

Network Administration

**Enterprise-level IT systems configuration

** Note: Systems development includes systems maintenance and web administration support

** Note: Enterprise-level IT configuration includes Oracle9iDB, n-tier application environment as well as designated server hosting/consolidation with Fort Detrick's Directorate of Information Management (DOIM) to support high-speed Internet backbone access, as well as, telecommunications requirements

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Interoperability of JRCAB's internal systems to its business strategy

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Overview of DMSB IT systems supporting their overall mission

Business Strategy

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- Organizational Web Site
- Joint Control Number (JCN)
- LINK
- **Treatment Brief
- **Task, Time, & Treater (TTT)
- **DEPMEDS
- Shelf Life Extension Program (SLEP)

- Joint Medical Logistics Integrated NSN System (JMLINS)
- **Common User Database (CUD)

**Treatment Brief, TTT, and DEPMEDS systems (and eventually the CUD) are the only joint systems of their kind). Medical modeling and training communities are solely dependent on these systems' joint reference data to feed their models and toolkits to support medical planning predictions and analysis

**LINK and JCN (and eventually JMLINS system) are the IT systems to manage all Joint medical material standardization actions

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Joint Medical Logistics Integrated National Stock Number System (JMLINS)
Program Update

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JMLINS Overview

- **Replaces functionalities of legacy JCN and LINK systems:**

    - One integrated system to provide a whole vision over NSN assignment and maintenance process – Reduces time to process NSN Assignment and Maintenance actions in support of the Military Services.

    - Automated web-based service to request, track and transmit standardization and maintenance actions through the Internet/Intranet.

    - The JMLINS system users will be the DMSB commodity monitors, the Ft Detrick Service Logistics Agencies (USAMMA, AFMLO, NMLC) and the Service field activities. The system is for supporting/monitoring the full life cycle of NSN Assignment and Maintenance action requests.

- **Web-based system with an Oracle enterprise database backend**

- **All new system security will be centrally controlled through the users authentication supported by Oracle Single Sign-On (SSO).**

- **The DMSB is planning to utilize Oracle Real Applications Cluster (RAC) technology to provide uninterrupted service to its web customers for all DMSB systems.**
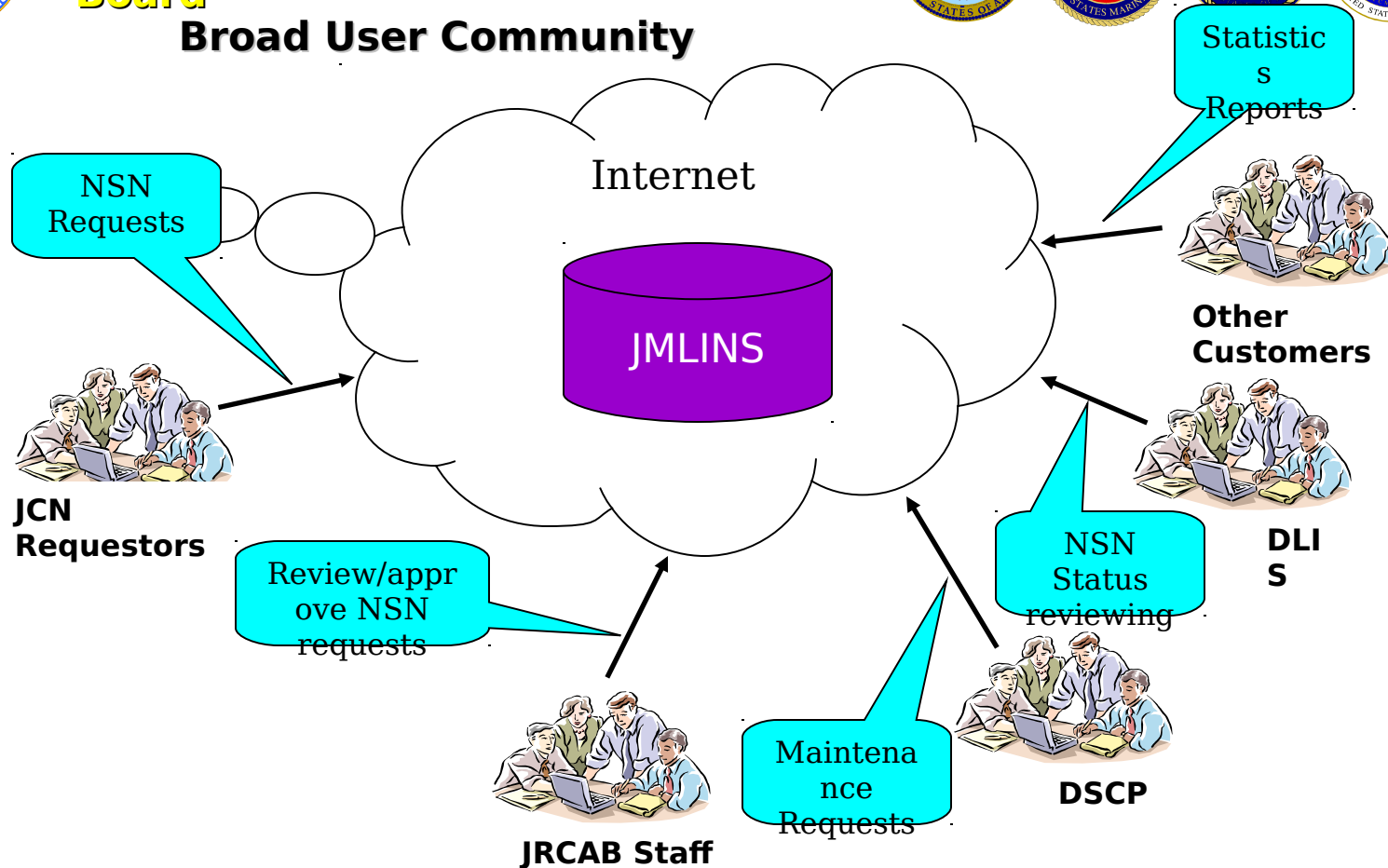
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The web-based JMLINS will provide service for more broad user communities:

- ❖ JCN user group
- ❖ JRCAB user group
- ❖ DSCP/DLIS personnel
- ❖ Other authorized people around the world

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Treatment Brief Program Update

PC/TB/TTT Development

PATIENT CONDITION "PC"

TREATMENT BRIEF "TB"

TASK TIME TREATER FILE "TTT"

STANDARDIZATION

An identified condition that commonly occurs during periods of combat or a in deployed setting

Descriptive brief of patient care to be delivered in the theater at levels 1, 2, 3 (& 4) CARE IS ESSENTIAL - (& DEFINITIVE CARE IS NOT PRECLUDED)

Listing of materiel required to deliver the patient care described in The Treatment Brief - comprised Of NSNs, CSGs, TRAYs, & EQUIP (contributes to defining Medical Materiel Set (MMS)/AMAL/ or Assemblage)

A jointly validated standard core product to meet the needs of the Medical Readiness community (standardize treatment, resources, skill set requirements)

JP 4.02 Doctrine for HSS in Joint Operations 30 July 2001

→

DMSB Clinical Guidelines & Assumptions DATE: ongoing

→

440 Treatment Briefs

↓

- For each patient condition (PC), construct medical materiel/equipment list
- Lists constructed to accomplish each task delineated in Treatment Briefs
- Joint Service clinicians choose medical materiel / equipment through operational and research experience & decisions are based on consensus
- All materiel must be associated with a medical task

←

TTT and DEPMEDS

Clinical Training

Operational Planning

Logistics

Manning

Transportation

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Technical Experts

Clinical Experts   **Logistical Experts**

JRCAB convenes Joint Service Subject Matter Expert (SME) Panels

Ensure quality medical materiel is available to the Services. The SME panel define, review and validate:

•Patient Conditions (PCs)

•Clinical Treatment Briefs (TBs) to medically address patient conditions

•Specify medical materiel needed to provide the clinical treatments

Association of Patient Conditions (PCs) and its reference information to its medical materiel

Task, Time, Treater (TTT) database

Deployable Medical Systems (DEPMEDS) database

Jointly selected medical materiel requirements

Information used by logisticians, clinicians, medical modeling and medical rea

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Current Treatment Brief Initiatives

Treatment Briefs provide a template for creating and reviewing treatment profiles for designated patient conditions – descriptive brief of patient care to be delivered at specific level of care

JRCAB sought to improve the Treatment Brief to transition to an interactive, standardized, and interoperable design (e.g., ease-of-use design for entire customer base consistent with how reviews are conducted):

• Design and development of a web-enabled tool to improve the Treatment Briefs and its corresponding data sets
• This web-enabled tool will allow designated operators to review, edit and revise Treatment Briefs (TBs) and to automate the population of data characteristics to its underlying database

Treatment Brief Core Requirements

Treatment Briefs will have two parts:

    A. Patient Presentation - a narrative of how the patient presents for treatment - their condition, treatment already rendered, type of injuries, etc.

    B. Treatment - Care or diagnostic procedures to be rendered at the current Level of care in each functional area (FA), (eg. EMT, OR, Recovery Room (RR), ICU, Intermediate Care (ICW), Minimal Care (MCW), Radiology, Laboratory, Combat Stress Control (CSC), etc.

Part A should be in paragraph form

Part B can be done in a table or list format that can be linked

Care orders or Diagnostic procedures should be selected from drop down boxes

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•Capability for operator to update treatment brief for a designated patient condition (PCs) (operator selects PC based on PC number and PC title)

•Provides visibility of designated patient condition info for each level of care

•Provides visibility of treatment brief selection categories for current level of care/treatment capability level

•Capability to toggle between multiple display modes (edit/display) and to navigate between PCs via shortcut keys UNCLASSIFI

ASSUMPTIONS FOR NHRC TB PROGRAM

1. Build at this time is targeted at Level 1-3.   This will include En route Care and Extended Care at Level 3 for evacuation delay.
2. The Treatment Brief will have a standardized layout for the Treatment/Action area:
   a. Action: Treatments & Documentation of Care
   b. IV Fluids / Blood
   c. Medications
   d. Labs
   e. Radiology
   f. OR
   g. Consults
   h. Diet
   i. Disposition / Percent for each category
      1) Transfer – entails internal movement of patient from one area to another
      2) Transport – entails external movement of patient from facility to facility
      3) Type of movement with percent – Litter, Ambulatory & percent of each
      4) Rapidity of movement – Urgent, Priority, Routine
      5) Movement means – Ground, Air
      6) RTD (Returned to Duty)
      7) Expired
3. Areas care will be done by Levels and Functional Areas:
   a. Level 1A
   b. Level 1B
   c. Level 2
      1) EMT
      2) OR – emergent surgeries only
      3) Holding / Ward – up to 72 hours
   d. Level 3
   e. En route care
4. Each Level will have defined Functional Areas that may or may not be at every level, i.e. Recovery Room = RR – is at Level 3, but not at Level 2. Anesthesia = CA and is at Level 2 & 3. Emergency Room Area – AA is at all levels 1-3.
5. A template will demonstrate Fluid / Blood usage, Class of Hemorrhage, Days of Stay Matrix. All tables (ie. Lab, Rad, and Equipment) will have a linkage table to demonstrate procedures ordered at each level of care.
6. The Joint Deployment Formulary (JDF) will be utilized as the medication database and will demonstrate normal dosage routes and levels by category and level of availability.
7. Treatment Tasks and materiel support (consumable, durable, equipment) will be shown by level of care and availability that can be sustained and supported by each level.
8. The program will be web-based to support virtual peer review and input.

Common User Database (CUD) Program Update

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JRCAB vision for CUD:

• Serve as a more capable version of the TTT in meeting the requirements of the deployed medical care system, with flexibility currently lacking in the TTT

• Support the Military Health System (MHS) by providing information resources concerning patient care for peacetime, national disasters, humanitarian, and wartime operations

• Provide architecture for medical planners, modelers, logisticians, trainers, and personnel to have flexibility in applying CUD data characteristics into their tools as well as defines standards to optimize reliability of each tool's output

• Expand availability of clinically verified treatment data for additional sectors of medical community, as well as, other governmental agencies to optimize each organization's ability to identify and develop resource needs (e.g., collaborating treatment data for bioterrorism-related issues)

Future CUD Capabilities

Reference data for analysis to support operations related to CBRNE/WMD. Inclusion of such current data into a product usable by a wider customer audience than legacy system. Legacy capabilities will be retained.

Associate patient condition to medical condition(s) to Medical Classification Standards (e.g., ICD-9, SNOMED)

Baseline data based on current treatment practices from SME process

Support modeling of entire continuum of patient care and related resources [from initial presenting medical condition(s) to return-to-duty, discharge, or death]

Incorporate medical conditions for widened operational scenarios (e.g., war/peacetime, MOOTW, CBRNE/WMD, DNBI, combat stress, dental, enroute and …)

Common User Database (CUD)

Data used for reference and planning source data consistent with current Joint Health Service Support Doctrine (Joint Pub 4-02) & Joint Strategic Capability Plan (JSCP) requirements.

Data for patient conditions for operations other than war as well as medical conditions treated during wartime (e.g., disease, humanitarian). The scope of care to include the entire continuum from onset of i11ness or injury to final disposition

Support relationship of medical condition treatment task(s) to level of care, time, treater and other resources (e.g., logistics, supplies, personnel, transportation, bed type, litter/ambulatory, etc.)

Rules for treatment prioritization, frequency, overlapping, mortality and irreversible consequences, etc.
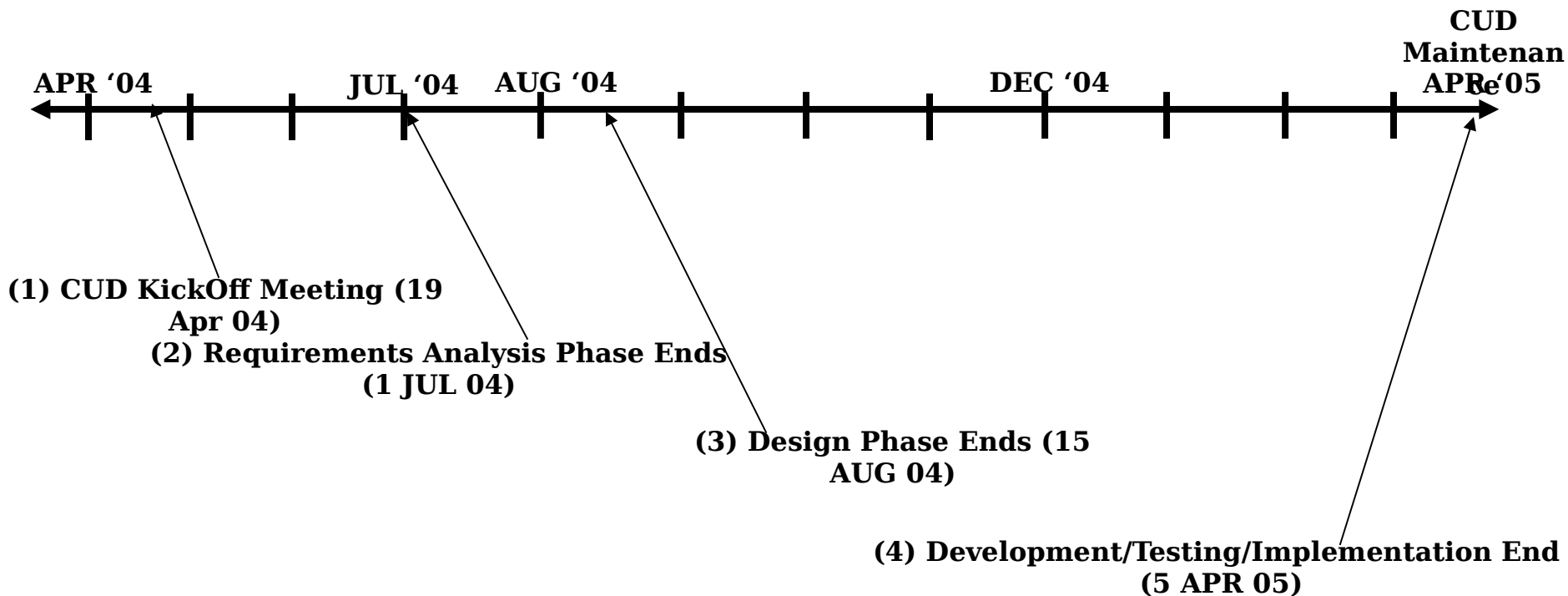
Will collect justification for change transactions. Justification includes who does what, why, where, and when

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CUD Program Schedule Overview
Period of Performance: 12 Months

CUD
Maintenan
APR ‘05

APR ‘04   JUL ‘04   AUG ‘04   DEC ‘04   APR ‘05

(1) CUD KickOff Meeting (19 Apr 04)

(2) Requirements Analysis Phase Ends (1 JUL 04)

(3) Design Phase Ends (15 AUG 04)

(4) Development/Testing/Implementation End (5 APR 05)

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CUD Program Update

19 April 2004 – CUD Kickoff Meeting

Purpose: Government and CUD contractor to reach agreement on the cost, schedule, and performance baselines.

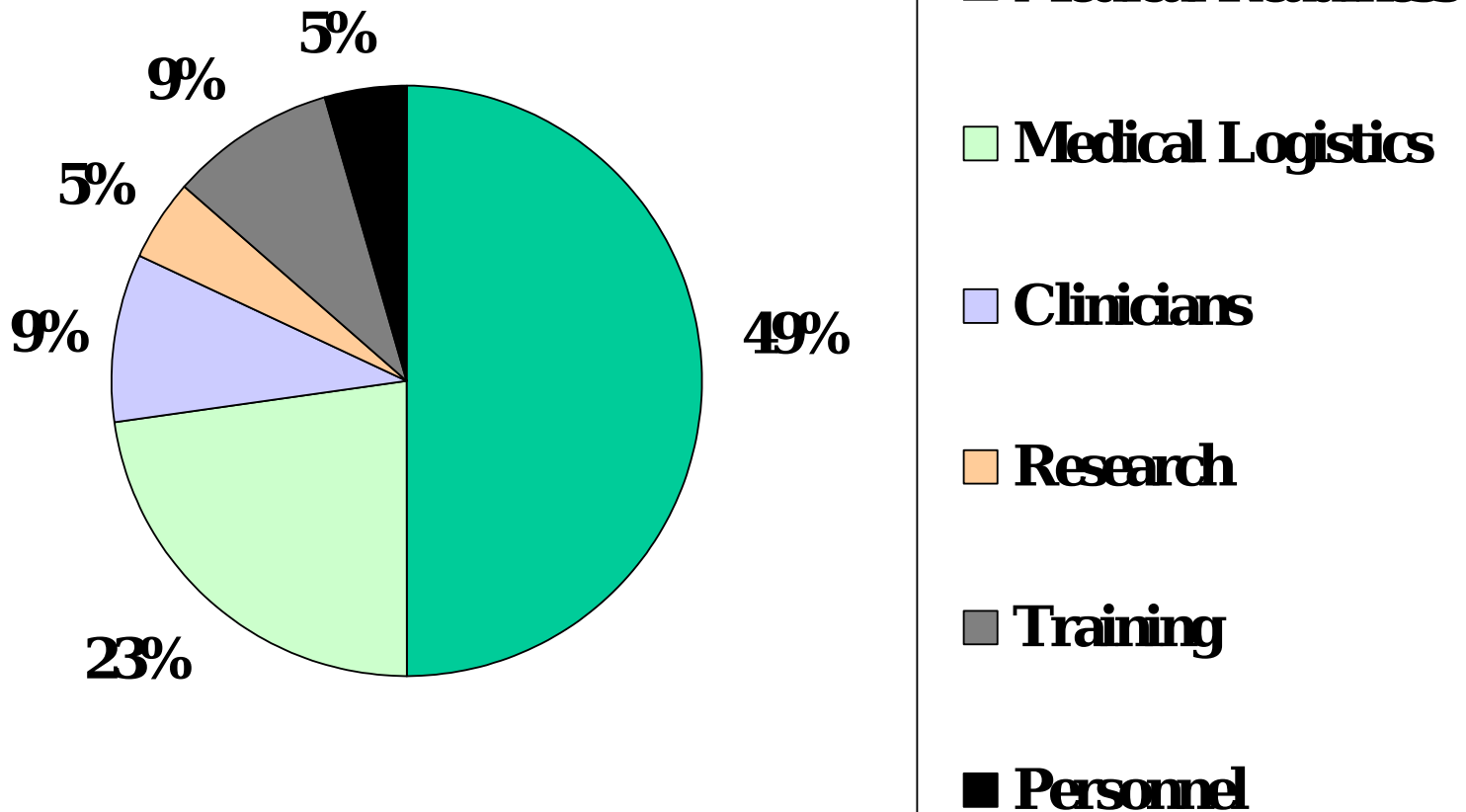**April – May 2004 – CUD Survey Fielded to External Agencies**

Purpose: Streamline requirements analysis phase and to ensure opportunity for our customers to provide input into analysis process, we requested assistance in providing feedback regarding system's capabilities which would be useful to their

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Taking a Closer Look – CUD Survey
Proportion of Community Which Responded

Legend:
- ■ Medical Readiness
- □ Medical Logistics
- ■ Clinicians
- ■ Research
- ■ Training
- ■ Personnel

Pie chart values: 49%, 23%, 9%, 5%, 9%, 5%

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CUD Program Update *(continued)*

April – May 2004 – CUD Working Group Meetings

Purpose: Government and CUD contractor exchange information pertinent to requirements analysis phase of program.

26 May 2004 – CUD Integrated Program Review (IPR)

Purpose: Monthly meeting presented by Contractor to address program schedule and milestones.

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Upcoming CUD Program Initiatives

June - Jul 2004 – CUD Working Group Meetings

Purpose: Government and CUD contractor exchange information pertinent to requirements analysis phase of program.

June 2004 – CUD Integrated Program Review (IPR)

Purpose: Monthly meeting presented by Contractor to address program schedule and milestones

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